

## AMENDMENTS TO THE SPECIFICATION:

Please amend the specification by replacing the paragraph at page 7, lines 10-27, with the following paragraph:

The third intracellular loops of GPCRs are thought to interact with and participate in the activation of G proteins upon agonist binding. *J. Wess (1997)*. Mutations in IC3 of the yeast mating pheromone receptors, Ste2 and Ste3 have profound effects on coupling the G proteins. *C. Boone et al. (1993)* and *C. Clark et al. (1994)*. Importantly, deletion of portion of the IC3 of mammalian MARs, in particular the rat M3 MAR, is correlated with improved functional expression in mammalian cells with retention of full ability to couple to the heterotrimeric G protein, Gq ( $G\alpha\beta\gamma$ ). The mutated M3 MAR retains all external loops. Transmembrane domains (TMDs) and internal domains other than the IC3 are unchanged. The IC3, found between 5<sup>th</sup> and 6<sup>th</sup> membrane spanning helices, was the only domain modified. The bulk of this domain, ~~[[96]]~~ 196 amino acids in the center of the IC3 (Ala273-Lys469), were deleted, leaving only 22 amino acids proximal to both the 5<sup>th</sup> and 6<sup>th</sup> transmembrane helices. Thus, the third intracellular loop of the MAR containing the IC3 deletion (IC3 $\Delta$ ) is 44 amino acids in length, compared to 240 amino acids in the IC3 of wild type M3 MAR. The improvement in functional expression may due to elimination of domains known to interact with cellular desensitization mechanisms, allowing more functional MAR to be retained at the cell surface.